



The National Wood Flooring Association  
Is Pleased To Present To You This

# HARDWOOD FLOORING MANUAL

**NWFA**

*Your Single Source of  
Complete Wood Flooring Information*  
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## INTRODUCTION

The National Wood Flooring Association has prepared this manual to provide all associated with hardwood flooring a single source of information about wood floors. Whether you are a sales person, an installing mechanic, or the shop owner, you will find this manual to be an important reference for hardwood floors, honest and factual.

Hardwood floors are expensive to your customers. And profitable to your company. And desired by the buying public. And misunderstood by many. How many times have you been asked, "How do I maintain a wood floor?" Or, "How or where do I start?" Let's give correct and honest answers. We all will generate repeat business through referrals -- and that's the best kind!

You are dealing with a beautiful, natural product that will be a featured surface for your customers as long as they own the building. Study this manual -- refer to it when questions are asked -- the answers are here.

## SOME WORDS OF THANKS

- To the American Parquet Association, which permitted their 1983 copyrighted manual to be the "skeleton" for this one.
- To the affiliated trade associations, manufacturers and others for their contributions of information and literature included here.
- To those who use it -- may you find it a worthwhile source of helpful information.

### NO GUARANTEE OR WARRANTY

The construction and maintenance practices set forth in this manual represent operational procedures accepted generally by the hardwood flooring industry. They do not represent foolproof instructions since individual applications vary from job site to job site in the same area and in different parts of the United States and other countries. National Wood Flooring Association does not accept any risk or liability for installation or maintenance of hardwood floors even when instructions in this manual are followed.

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**EXHIBIT B**

## NATIONAL WOOD FLOORING ASSOCIATION

## INSTALLATION GUIDELINES

## WOOD FLOORING

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## Chapter 5, Solid Plank Floor

For 3/4" (18.3mm) CDX Plywood and 23/32" (18.3mm) OSB, with joist systems spaced over maximum 19.2" (475mm) o/c requires an additional layer of plywood is required. Minimum requirement: 1/2" (15/32", 11.9mm) CDX plywood subfloor/underlayment, (Exposure 1) 4'X8' sheets. The 1/2" plywood should be offset by 1/2 panel in each direction to the existing subflooring. The panels may also be laid on a diagonal or perpendicular, with 1/8" spacing between sheets. Nail on a 6" minimum grid pattern using ring shanked nails. Or brace between joists with 2X6 or wider boards every 24".

### V. Subfloor Guidelines - Concrete Slab

NOTE: Always follow the manufacturers recommendation for proper subfloor.

Concrete must be flat, dry, structurally sound and clean.

NOTE: A moisture retarder with permeance equivalent to 4-mil polyethylene film is always required over the concrete slab and below the subflooring material.

Test concrete for moisture according to Moisture Testing Procedures in Section V, Appendix AA. Excess moisture should not be present.

Tolerance should be flat to within 3/16" in 10' or 1/8" in 6'.

For installations using mechanical fasteners of 1-1/2" and above, the subfloor should be flat to within 1/4" in 10' or 3/16" in 6'.

Substrate should be flattened to tolerance

Lightweight concrete (less than 3000 psi) where adhesive used has a higher psi rating than concrete, use with a Subfloor-Floated.

RULE OF THUMB: Draw a nail across the top and if it leaves an indentation, it is probably lightweight concrete, use Subfloor-Floated.

Before moisture testing begins, the slab must be cured for a MINIMUM of 30 days.

NAIL DOWN PLANK FLOORING MUST HAVE AN APPROVED SUBFLOOR OVER THE CONCRETE. PLANK CAN NOT BE SHOT TO THE CONCRETE. 3/4" PLANK CANNOT BE DIRECT GLUED TO CONCRETE. PLANK CANNOT BE GLUED AND NAILED DIRECT TO CONCRETE

NOTE: Some manufacturers suggest direct glue installation of 3/4" plank in lengths less than 11 1/4". In such cases follow manufacturers recommendation.

NOTE: A MOISTURE RETARDER IS RECOMMENDED ANYTIME SOLID WOOD FLOORING IS INSTALLED OVER CONCRETE.

**EXHIBIT B**